



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------------------|------------------------|
| 10/736,589 | 12/17/2003 | Wataru Ito | 500.43348X00 | 5718 |
| 24956 7590 05/18/2007 MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314 | | | EXAMINER RAO, ANAND SHASHIKANT | |
| | | | ART UNIT 2621 | PAPER NUMBER |
| | | | MAIL DATE 05/18/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/736,589

Applicant(s)

ITO ET AL.

Examiner

Andy S. Rao

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2621

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 22-29 as filed on 2/23/07 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 22-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Martins.

Martins discloses an object tracking method for detecting and tracking an object in a picked-up image based on an image signal acquired by an imaging unit (Martins: figures 4, 6-9), comprising the steps of: a) producing a template image of a predetermined size including a part of said object from an image acquired from said imaging unit (Martins: column 5, lines 60-65); b) conducting a template matching between a present image from said imaging unit and said template image, and detecting a position of a part of said present image matched with said template image as a current template image (Martins: column 6, lines 1-5); c) detecting an image changing area between at least two frames of images picked up at different time points by said imaging unit (Martins: column 6, lines 40-50); and d) detecting a position of said object based on said detected image changing area and setting the detected position of said object as a new template image in place of said current template image (Martins: column 6, lines 60-65), as in claim 22.

Regarding claim 23, Martins discloses wherein said step d) includes a sub-step of detecting, based on said detected image changing area, an area having a greatest difference or a difference equal to or larger than a predetermined value between the said two frames as said position of said object (Martins: column 6, lines 15-25), as in the claim.

Regarding claims 24-25, Martins discloses wherein said step d) includes a sub-step of setting a search area for detecting the position of said object based on the position of said current template image (Martins: column 6, lines 1-5: "clipping"), and detecting an area having a greatest difference or a difference equal to or larger than a predetermined value between the said two frames as said position of said object in said set search area (Martins: column 6, lines 20-30), as in the claims.

Art Unit: 2621

Martins discloses an object tracking apparatus for detecting and tracking an object in a picked-up image based on an image signal acquired by an imaging unit (Martins: figures 1 and 3), comprising: an image input unit which converts video signals acquired by said imaging unit sequentially into image signals (Martins: column 3, lines 3-15); and a processing unit which processes the image signals converted by said image input unit, in a predetermined sequence (Martins: column 3, lines 20-25), wherein said processing unit produces a template image of a predetermined size including a part of said object from an image acquired from said imaging unit (Martins: column 5, lines 60-65); conducts a template matching between a present image from said imaging unit and said template image (Martins: column 6, lines 1-5), and detects a position of a part of said present image matched with said template image as a current template image detects an image changing area between at least two frames of images picked up at different time points by said imaging unit (Martins: column 6, lines 40-50); and detects a position of said object based on said detected image changing area and sets the detected position of said object as a new template image in place of said current template image (Martins: column 6, lines 60-65), as in claim 26.

Regarding claim 27, Martins discloses wherein said processing unit sets a search area for detecting the position of said object based on the position of said current template image, and detects an area having a greatest difference or a difference equal to or larger than a predetermined value between the said two frames as said position of said object in said set search area (Martins: column 6, lines 15-25), as in the claim.

Regarding claims 28-29, Martins discloses wherein said processing unit sets a search area for detecting the position of said object based on the position of said current template image

Art Unit: 2621

(Martins: column 6, lines 1-5: "clipping"), and detects an area having a greatest difference or a difference equal to or larger than a predetermined value between the said two frames as said position of said object in said set search area (Martins: column 6, lines 20-30), as in the claims.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
May 11, 2007

ASSIGNED
PRIMARY EXAMINER

